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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,895	08/27/2001	David Paul Agnello	BU9-98-183-US2	4105

7590

11/06/2002

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EXAMINER

VU, HUNG K

ART UNIT

PAPER NUMBER

2811

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,895

Applicant(s)

AGNELLO ET AL.

Examiner

Hung K. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-38 is/are pending in the application.
- 4a) Of the above claim(s) 28-31 and 35-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-27 and 32-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Invention of Embodiment 2, Figures 10 and 18, Claims 25-27 and 32-34, in Paper No. 4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Applicant's election without traverse of Invention of Embodiment 2, Figures 10 and 18, Claims 25-27 and 32-34, in Paper No. 4 is acknowledged.

Claims 28-31 and 35-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 4.

Information Disclosure Statement

2. Applicants indicated that there is the information disclosure statement (form 1449) enclosed. However, the examiner was unable to find the form 1449 and reference(s) in the file. Applicants are requested to provide the new copies of form 1449 and reference(s) if there is any information need to be considered.

Drawings

3. The drawings are objected to because SiO₂, in Figures 17 and 18, should be changed to CoSi₂. Note that the specification, at page 13, lines 13-14, states that layers 83, 85 and 91 are cobalt disilicide. A proposed drawing correction or corrected drawings are required in reply to

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the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25-27 and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Raaijmakers (PN 4,908,331).

Raaijmakers discloses, as shown in Figure 2 and Col. 3, line 47 – Col. 4, line 50, a structure comprising a layer of cobalt disilicide (10), wherein the layer of cobalt disilicide is substantially free of cobalt monosilicide. Absent of evidence to the contrary it is held that there is no oxide of titanium on the layer of cobalt disilicide. Therefore, there won't be any stringer of an oxide of titanium on the layer of cobalt disilicide.

With regard to claim 26, Raaijmakers discloses the structure further comprising a layer of silicon (11), wherein the layer of cobalt disilicide is on the layer of silicon.

With regard to claim 27, the term “the layer of cobalt disilicide is in contact with a reagent comprising water, ammonium hydroxide, and hydrogen peroxide” is method recitation in a device claimed, and it is non-limiting, because only the final product is relevant, not the method of making. Note that this process limitation is part of the intermediate step to form the final product and it does not add any particular element to the final structure. A product by process claim is directed to the product per se, no matter how actually made. See also MPEP 2113. Moreover, an old or obvious product produced by a new method is not a patentable product, whether claimed in “product by process” claims or not.

With regard to claim 32, Raaijmakers discloses, as shown in Figure 2 and Col. 3, line 47 – Col. 4, line 50, a structure having a substrate (11), wherein the substrate includes:

- an insulated-gate field effect transistor (FET), wherein the FET includes a source (3), a drain (4), and a gate (6);

- a first layer of cobalt disilicide (10) on the source, the first layer having substantially no cobalt monosilicide;

- a second layer of cobalt disilicide (10) on the drain, the second layer having substantially no cobalt monosilicide;

- a third layer of cobalt disilicide (10) on the gate, the third layer having substantially no cobalt monosilicide. Absent of evidence to the contrary it is held that there is no oxide of titanium on the layer of cobalt disilicide. Therefore, there won't be any stringer of an oxide of titanium on the first, second and third layers of cobalt disilicide.

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With regard to claim 33, Raaijmakers discloses the structure further comprising,

a first insulating structure (8) bordering a side of the source (3) and bordering a side of the first layer of cobalt disilicide (10); and

a second insulating structure (8) bordering a side of the drain (4) and bordering a side of the second layer of cobalt disilicide (10).

With regard to claim 34, the term “the first layer of cobalt disilicide, the second layer of cobalt disilicide, and the third layer of cobalt disilicide are each in contact with a reagent comprising water, ammonium hydroxide, and hydrogen peroxide” is method recitation in a device claimed, and it is non-limiting, because only the final product is relevant, not the method of making. Note that this process limitation is part of the intermediate step to form the final product and it does not add any particular element to the final structure. A product by process claim is directed to the product per se, no matter how actually made. See also MPEP 2113. Moreover, an old or obvious product produced by a new method is not a patentable product, whether claimed in “product by process” claims or not.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung K. Vu whose telephone number is (703) 308-4079. The examiner can normally be reached on Mon-Thurs 7:00-4:30 and every other Friday 7:00-3:30, Eastern Time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (703) 308-2772. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Vu

October 31, 2002

Hung Lu